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September 28, 1993

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William F. Caton, Acting Secretary
Federal Communications Commission
Room 222 -- Mail Stop 1170
1919 M Street N.W.
Washington DC 20554

Re: Ex Parte Communication in PR Docket No. 93-61, Automatic Vehicle Monitoring

Dear Mr. Caton:

Pursuant to Section 1.1206(a)(2) of the Commission's Rules, I am filing the original and one copy of this letter to report an ex parte communication in the above-referenced proceeding.

Yesterday afternoon Dr. Frederic P. Heiman, Executive Vice President, and Raymond A. Martino, Director, RF Engineering, of Symbol Technologies, Inc. ("Symbol") met with David R. Siddall, Chief, Frequency Allocation Branch, Office of Engineering and Technology. They were accompanied by Peter Tannenwald of this firm and the undersigned.

Messrs. Heiman and Martino reiterated and expanded on the views that Symbol expressed in the Comments and Reply Comments it has filed in this proceeding.

Attached is a copy of documents that Symbol's representatives left with the Commission staff.

If there are any questions about this notice, please call me at the number above.

Respectfully submitted,

Mitchell Lazarus

Enclosure

cc: David R. Siddall
Frederic P. Heiman
Raymond A. Martino

[redacted]

symbol®

Presentation To The:

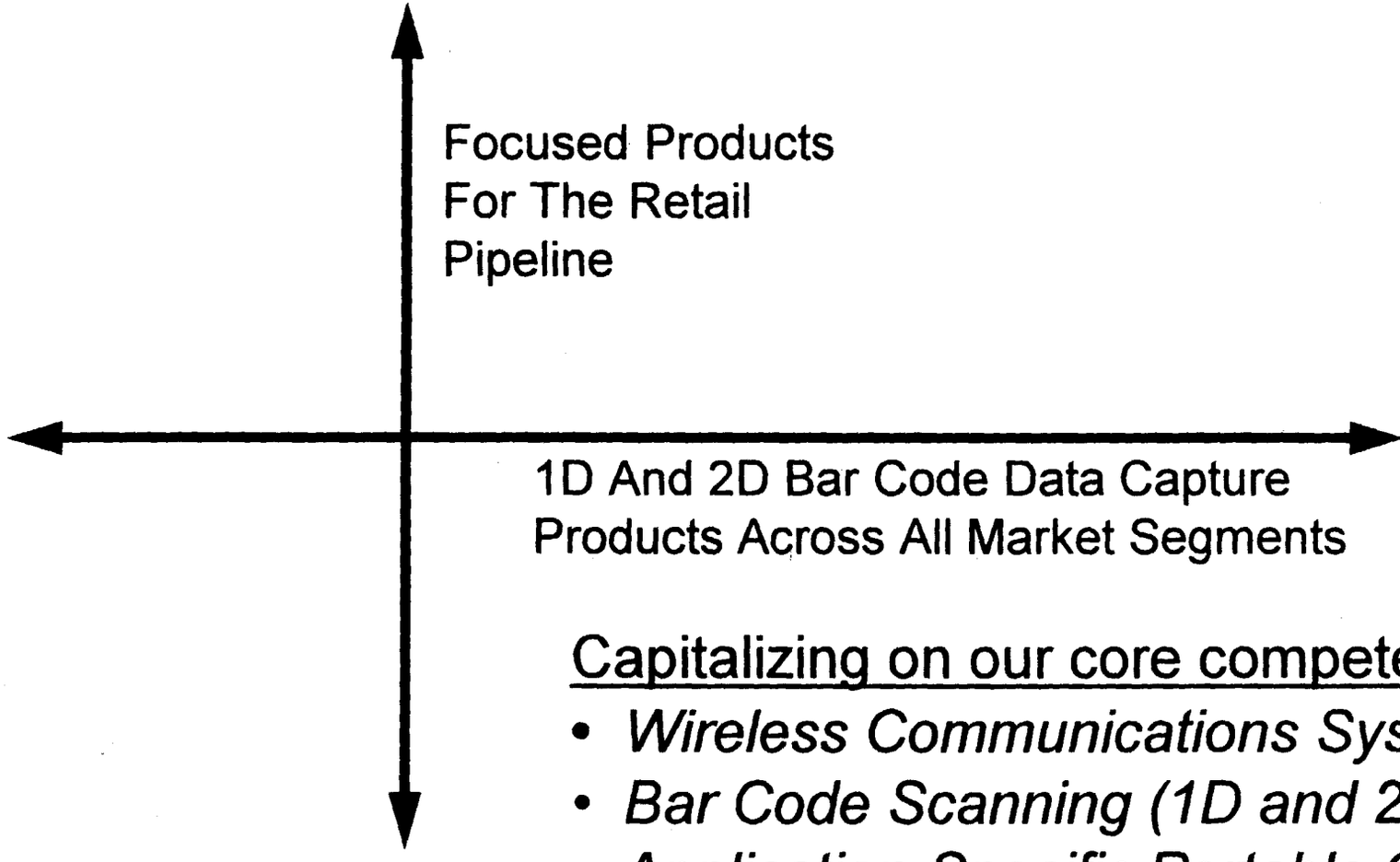
Federal Communications Commission

Fred P. Heiman
Executive Vice President
Symbol Technologies, Inc.
27 - 28 September 1993

Agenda

- Background
  - Symbol Technologies, Inc.
- Commercial Success Of Part 15 Systems
  - Encouraged By The FCC
  - Many Suppliers And Well-Known Users
  - Efficient Use Of The 902 - 928 MHz Band
  - Created Jobs And Increased Productivity
- Focus On The Retail Marketplace
  - Spectrum One®
  - The Wireless Store
- Options And Recommendation

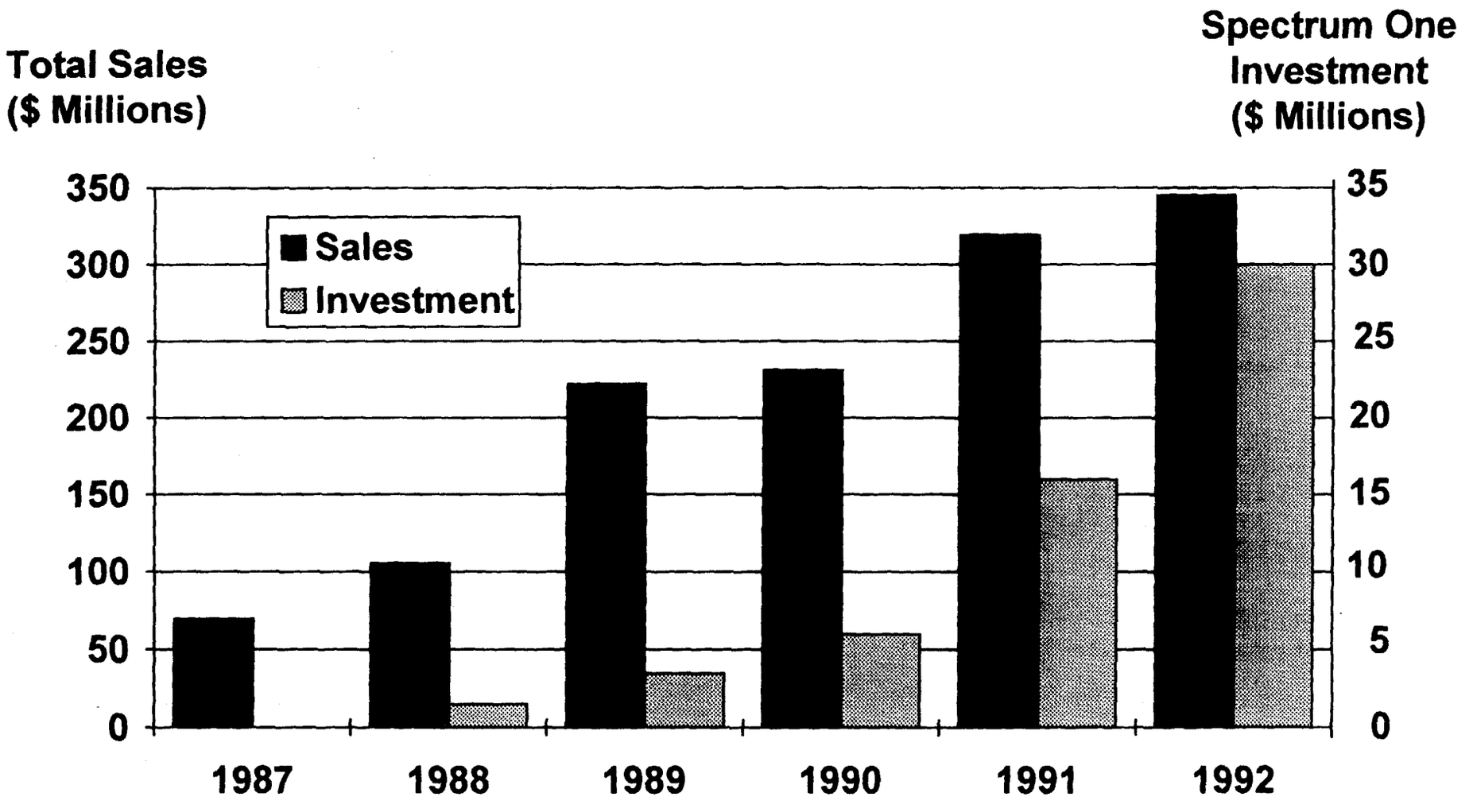
Symbol's Product Focus



Capitalizing on our core competencies in:

- *Wireless Communications Systems*
- *Bar Code Scanning (1D and 2D)*
- *Application-Specific Portable Computing*

Symbol Technologies, Inc.



➡ *Total investment through 1992 exceeds $80 million.*

Part 15 Systems Are Successful

- The FCC encouraged use of the 902 - 928 MHz band:

  "The Experiment Was Successful."

- Opening up this band to high speed data communications:
  - Created jobs in every major industrial sector:

    Retail *Transportation* *Office* *Military*

    Industrial *Factory* *Consumer* *Health Care*
  - Created a revolution in the retail industry resulting in improved productivity
  - Could do the same in the health care industry, resulting in lower costs
  - Enabled efficient use of the band with minimum government intervention

Part 15 Systems Are Successful

- For the most part, the suppliers and users are not "FCC Savvy" businesses.
- The 1989 revisions were seen as continuing support of this band by the FCC.
- Based on success in the 902 - 928 MHz band:
  - The IEEE 802.11 committee has been meeting for two years to set a spread spectrum RF LAN standard for communications in the 2.4 GHz ISM band.
  - The ETSI Group In Europe is in the process of approving spread spectrum communications in the 2.400 - 2.500 GHz band.
  - Japan[1] has approved spread spectrum communications in the 2.471 - 2.497 GHz band.

[1] *Financial hardship to pioneering U.S. companies will reward late-coming Japanese companies with easily won market share in the U.S.*

Partial RF LAN Vendor List

Symbol Technologies	Intermec
Telxon	Cylink
NCR (Division Of AT&T)	Telesystems
California Microwave	Apple Computer
Norand	Omni-Point
LXE	O'Neil Comm.
Proxim	Clinicom
Xircom	Motorola
IBM	GEC Plessey

Vendors to the industrial and retail LAN market segment only. Does not include vendors of wireless phones, PBXs, WANs, etc.

Industrial And Retail Markets

Includes only spread spectrum LAN Systems

Symbol

Market Share	30%
Installed Base	> $75 million
Investment	> $80 million

Total Market Segment

Installed Base	> $250 million
Investment	> $275 million
Growth Rate	> 50% per year

These numbers no not include wireless phones, wireless PBXs, office LANs, alarm systems, point-to-point communications and other Part 15 products. Others estimate the total market to be about $2 billion.

Partial Symbol Customer List

IBM Corp.
J.C. Penney
AT&T
K mart
General Mills
GSA (U.S.)
SAS Airlines
Haggar Apparel
Eddie Bauer
Hudson Bay Co.
Zellers
Hughes Aircraft
Neutrogena
So. Cal. Edison
Penn. P & L
Phillip Morris
Price Mart

Hewlett Packard
Toys "R" Us
Wal*Mart
Frank's Nursery
Kids "R" Us
Kraft General Foods
The Gap
Lowes
Lumberland
Lord & Taylor
Mazda
McKesson Drugs
Smith's Food & Drug
DSL Transportation
Synoptics
Target Stores
Puritan Bennett

Mervyn's Stores
Mitsubishi
Monsanto
Nakanishi
3-COM
Acer
Adidas
Costco
AST Research
UPS
Nordstrom
Venture Stores
Renault
Wherehouse
Ross Stores
Yamaha

Johnson & Johnson
Bassett Walker
Beach Products
Bell Canada
Builders Square
Club Price
Collins & Aikman
American Tobacco
Kohls
National Semiconductor
Atlantic Food Service
Red River Army Base
Elder Beerman
Roche Biochemical
Woolworths
Libbey Owens Ford

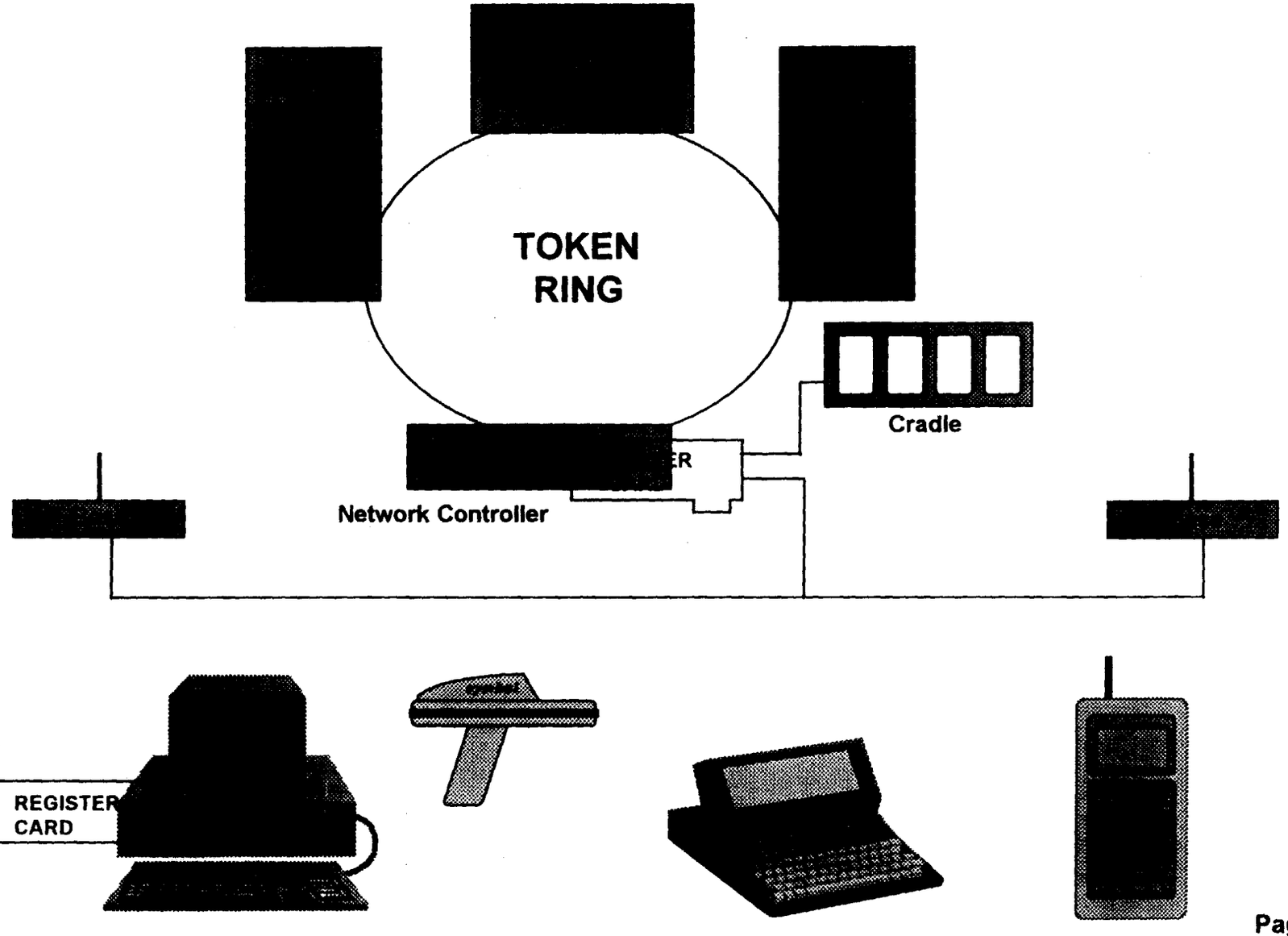
Retailing In The 90s

The Dominant Technologies That Will Drive The Industry Are:

- *Wireless Communications*
- *Distributing Processing*

Wireless Store Configuration

The total system investment is substantial



Summary

- Wireless LANs and the business applications they support have become an important part of the U.S. economic infrastructure:
  - 2000 Wal*Mart stores with 29 terminals per store
  - 2200 Kmart stores with 10 terminals per store
  - 450 Mervyn's Stores with 20 wireless registers per store
  - Test by Telxon and United Airlines at O'Hare Airport
  - A hundred other success stories
- The Commission should acknowledge and encourage success of the Part 15 industry and:
  - Protect shared use of this band by unlicensed users;
  - Require LMS services to identify another spectrum.